

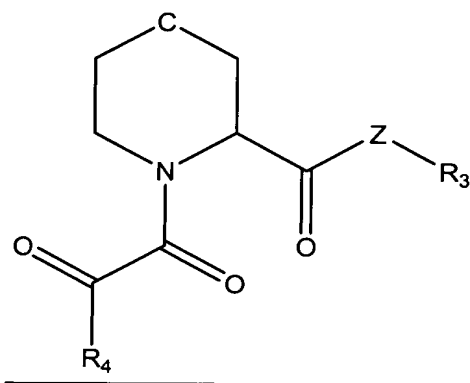
AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 – 83. (Canceled).

84. (Currently Amended) A ~~neurotrophic, low molecular weight, small molecule~~
~~N-glyoxyl heterocyclic ketone or thioester~~ compound of the formula



wherein C is S;

Z is CH₂ or S;

R₃ is 2-phenylpropyl or 3-phenylpropyl; and

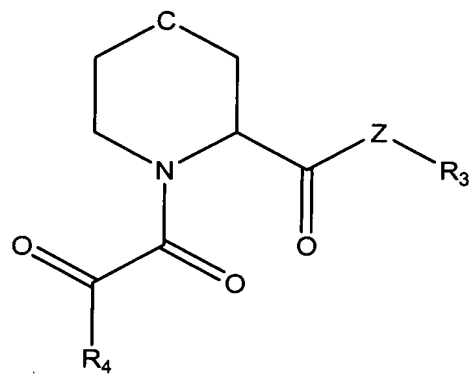
R₄ is 1,1-Dimethylpropyl,

having an affinity for FKBP-type immunophilin.

85. (Currently Amended) The ~~neurotrophic~~ compound of claim 84, wherein the FKBP-type immunophilin is FKBP-12.

86. (Currently Amended) A pharmaceutical composition comprising:

(i) a ~~neurotrophic, low molecular weight, small molecule~~ N-glyoxyl heterocyclic
~~ketone or thioester~~ compound of the formula



wherein C is S;

Z is CH₂ or S;

R₃ is 2-phenylpropyl or 3-phenylpropyl; and

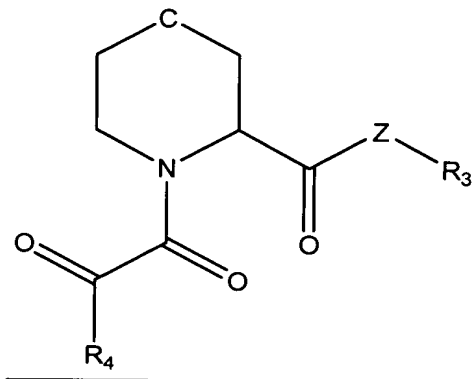
R₄ is 1,1-Dimethylpropyl,

having an affinity for FKBP-type immunophilin; and

(ii) a pharmaceutically acceptable carrier.

87. (Previously Presented) The pharmaceutical composition of claim 86, wherein the FKBP-type immunophilin is FKBP-12.

88. (Currently Amended) A method for effecting a neuronal activity, comprising administering to an animal in need thereof a ~~neurotrophic, low molecular weight, small molecule N-glyoxyl heterocyclic ketone or thioester~~ compound of the formula



wherein C is S;

Z is CH₂ or S;

R₃ is 2-phenylpropyl or 3-phenylpropyl; and

R₄ is 1,1-Dimethylpropyl,

having an affinity for FKBP-type immunophilin.

89. (Currently amended). The method of claim 88, wherein the neuronal activity is stimulation of damaged neurons, promotion of neuronal regeneration, ~~prevention of neurodegeneration~~, or treatment of a neurological disorder.

90. (Previously Presented) The method of claim 89, wherein the neurological disorder is peripheral neuropathy caused by physical injury or disease state, traumatic injury to the brain, physical damage to the spinal cord, stroke associated with brain damage, or neurological disorder relating to neurodegeneration.

91. (Previously Presented) The method of claim 90, wherein the neurological disorder relating to neurodegeneration is Alzheimer's disease, Huntington's disease, Parkinson's disease or amyotrophic lateral sclerosis.

92. (Previously Presented) The method of claim 88, wherein the FKBP-type immunophilin is FKBP-12.